Matrix 3

➤Owner's Guide

limited lifetime consumer warranty

Directed Electronics, Inc. ("Directed®") promises to the original purchaser to repair or replace with a comparable reconditioned model any Directed® unit (hereafter the "unit"), excluding without limitation the siren, the remote transmitters, the associated sensors and accessories, which proves to be defective in workmanship or material under reasonable use during the lifetime of the vehicle provided the following conditions are met: the unit was professionally installed and serviced by an authorized Directed® dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized Directed® dealer; and the unit is returned to Directed®, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. This warranty is non-transferable and is automatically void if: the original purchaser has not completed the warranty card and mailed it within ten (10) days of the date of purchase to the address listed on the card; the unit's date code or serial number is defaced, missing or altered; the unit has been modified or used in a manner contrary to its intended purpose; the unit has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defects in materials or construction. The warranty does not cover damage to the unit caused by installation or removal of the unit. Directed®, in its sole discretion, will determine what constitutes excessive damage and may refuse the return of any unit with excessive damage. TO THE MAXIMUM EXTENT ALLOWED BY LAW, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DIRECTED® NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED® DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DIRECTED® SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DIRECTED® IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VANDALISM. THIS WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY CONSEQUENTIAL DAMAGES OF ANY KIND. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED® OR ITS SUBSIDIARY, THE PROPER VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND

© 2001 directed electronics, inc.

APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DIRECTED® SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED® DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED® SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE AS DESCRIBED ABOVE. Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

This product may be covered by an Anti-Theft Guarantee. See your authorized Directed® dealer for details of the plan or call Directed® Customer Service at 1-800-876-0800. Directed® security systems, including this unit, are deterrents against possible theft. Directed® is not offering a guarantee or insurance against vandalism, damage or theft of the automobile, its parts or contents; and hereby expressly disclaims any liability whatsoever, including without limitation, liability for theft, damage and/or vandalism. Directed® does not and has not authorized any person or entity to create for it any other obligation, promise, duty or obligation in connection with this security system.

Make sure you have all of the following information from your dealer:

A clear copy of the sales receipt, showing the following:

- Date of purchase
- Your full name and address
- Authorized dealer's company name and address
- Type of alarm installed
- Year, make, model and color of the automobile
- Automobile license number
- Vehicle identification number
- All security options installed on automobile
- Installation receipts

trademarks and copyrights

Bitwriter™, Clifford®, Code Hopping™, DEI®, Directed®, Doubleguard®, ESP™, FailSafe®, Ghost Switch™, Learn Routine™, Nite-Lite®, Nuisance Prevention Circuitry®, NPC®, Revenger®, Silent Mode™, Soft Chirp®, Stealth Coding™, Stinger®, Valet®, Vehicle Recovery System®, VRS®, and Warn Away® are all Trademarks or Registered Trademarks of Directed Electronics, Inc.

© 2001 directed electronics, inc.

table of contents

Limited Lifetime Consumer Warranty i
What Is Included 2
Important Information 2
System Maintenance 3
Your Warranty 3
FCC/ID Notice 3
Transmitter Functions 4
Standard Configuration 4
Using Your System 5
Arming 5
Multi-Level Security Arming (Optional Feature) 7
Arming While Driving 8
Disarming 9
Siren Silencing 9
Disarming Without a Transmitter 10
Remote Controlled Chirp Muting 10
Panic Mode 11
Valet Mode 11
Remote Controlled Valet Mode 12
False Alarm Control Technology (FACT) 12
Diagnostics 13
Arming Diagnostics 14
Disarming Diagnostics 14
Table of Zones 15
Anti-Code Grabbing (ACG) 16
High Frequency 16
Owner Recognition 17
Smart Power Up II 17
Power Saver Mode 18
Programming Options 18
Installation Options 22
Vehicle Recovery System (VRS) 22
Arming the VRS 23
VRS Triggered Sequence 24
Disarming the VRS 25
Glossary Of Terms 26
Security & Convenience Expansions 28
Quick Reference Guide (Removable) 30

© 2001 directed electronics, inc.

what is included

- A 3-channel control module
- A pair of four-button transmitters
- An XHF receiver/antenna
- A shock sensor
- A siren
- A red LED status indicator light
- A push-button Valet switch
- Your warranty registration
- Fault-proof starter interrupt ready circuitry (may require additional labor)

important information

Congratulations on the purchase of your state-of-the-art vehicle security system. It has been designed to provide years of trouble-free operation. This system must be installed by an authorized dealer. Installation of this product by anyone other than an authorized dealer voids the warranty. As verification of authorization, all authorized dealers are provided with preprinted dealer certificates.

In order to maximize the use of this system, please review this owner's guide carefully prior to using your system. You can print additional or replacement copies of this owner's guide by accessing the Clifford website at www.clifford.com.

© 2001 directed electronics, inc.

➜ system maintenance

The system requires no specific maintenance. Your remote control is powered by a small, lightweight 3-volt lithium battery that will last approximately one year under normal use. When the battery weakens, operating range will be reduced and the LED on the remote will dim.

➜ your warranty

Your warranty registration must be completely filled out and returned within 10 days of purchase. Your product warranty will not be validated if your warranty registration is not returned. Make sure you receive the warranty registration from your dealer. It is also necessary to keep your proof of purchase, which reflects that the product was installed by an authorized dealer.

➜ fcc/id notice

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

© 2001 directed electronics, inc.

transmitter functions

The receiver uses computer-based code learning to learn the transmitter buttons. This makes it possible to assign any transmitter button to any receiver function. The transmitter initially comes programmed with Standard Configuration, but may also be customized by an authorized dealer. The buttons in all of the instructions in this manual correspond to a Standard Configuration transmitter.

➜ standard configuration

Button

The arming, disarming and panic function are usually controlled by this button.

Button

Remote Controlled Chirp Muting and an optional accessory function are controlled by . (Remote Controlled Chirp Muting works by pressing for less than one second before arming or disarming the system. An optional accessory function, such as trunk release, can be controlled by pressing for 1.5 seconds.) This accessory output controls _____.

Button

An optional accessory convenience or expansion function that you have added to your system can be activated by pressing . This accessory output controls _____.

© 2001 directed electronics, inc.

Button

Another optional convenience or expansion option that you have added to your system can be activated by pressing . This accessory output controls_____.

using your system

The buttons used in the instructions in this manual correspond to the standard transmitter configuration. If your transmitter has been custom configured, the icons on your transmitter buttons may not correspond to the indicated functions.

➜ arming

You can activate, or arm, the system by pressing on your transmitter for one second. When the system arms, you will hear a short siren sound, or chirp, and see the parking lights flash once. If the vehicle's power door locks have been connected to the system, the doors will lock.

While the system is armed, the LED status indicator will flash approximately once per second, indicating that the system is actively protecting your vehicle. If you hear a second chirp after arming, and see the LED status indicator flashing in groups, refer to the Diagnostics section of this guide. This extra chirp is called Bypass Notification.

© 2001 directed electronics, inc.

The system also can be programmed to arm itself automatically (called passive arming). If the system is programmed for passive arming, it will automatically arm 30 seconds after the ignition is turned off and the system "sees" you leave the vehicle by opening and closing a door. Whenever the system is in its 30-second passive-arming countdown, the LED status indicator will flash twice as fast as it does when the system is armed. The siren will chirp once 20 seconds after the last door has been closed. The system is not actually armed at that point. The system arms and the doors lock (if connected and programmed for passive locking) at 30 seconds, but the siren will not chirp. The early chirp provides you with a 10-second warning prior to arming.

> **note:** If any protected entry point (such as a door or a switch-protected trunk or hood) is open, the system will not passively arm (unless forced passive arming is programmed on.) See Programming Options section of this guide. Additionally, each time a sensor is triggered during the arming countdown, the 30-second countdown starts over.

When armed, your vehicle is protected as follows:

- Light impacts will trigger the Warning Zone signal. When triggered, the siren will chirp and the parking lights will flash for a few seconds.
- Heavy impacts will trigger the system. The triggered sequence is between 1-180 seconds of constant siren and flashing parking lights.
- If a vehicle door is opened, the security system will immediately start chirping the siren and flashing the parking lights.

© 2001 directed electronics, inc.

Three seconds later, the siren output changes to a continuous blast. This progressive response gives you time to disarm the security system with your transmitter if you inadvertently open the door while the system is armed, while still providing an instant response (even if the door is immediately closed).

- Turning on the ignition key will trip the same two-stage response as opening a door.
- The optional starter interrupt prevents the vehicle's starter from cranking.

multi-level security arming (optional feature)

> **note:** Multi-Level Security Arming is only available when using an optional 4-button Radar Master transmitter that has been configured with separate transmitter buttons for arming and disarming.

Multi-Level Security Arming allows you to select which of the security system's inputs or sensors will be active and which will be bypassed at the time that the system is armed. (See Table of Zones section.) Pressing the arm button again within five seconds of arming the security system will activate the Multi-Level Security Arming feature. Each time the arm button is pressed again, a different security level is selected. The different security levels can be selected as follows:

- Pressing the arm button one time: The siren chirps once. The system is armed.

© 2001 directed electronics, inc.

- Pressing the arm button a second time within five seconds: The siren chirps twice followed by a long chirp. Zone Two is now bypassed.
- Pressing the arm button a third time within five seconds: The siren chirps three times followed by a long chirp. Zone Four is now bypassed.
- Pressing the arm button a fourth time within five seconds: The siren chirps four times followed by a long chirp. Zones Two and Four are now bypassed.
- Pressing the arm button a fifth time within five seconds: The siren chirps five times followed by a long chirp. All input zones, except the ignition, are now bypassed.

> **note:** Multi-Level Security Arming only applies to a single arming cycle. Once the system is disarmed and then re-armed, all the zones will be active again.

➜ arming while driving

Your system can be armed while driving the vehicle! Simply press on your transmitter for 1.5 seconds while the vehicle is running or while the ignition is on. The siren will chirp once and then once more to indicate that the ignition is on. The security system will not respond to any input except the door triggers and the starter interrupt relay (if installed) will not be activated. The system will disarm automatically whenever the ignition is turned off. The siren will chirp twice and the LED will stop flashing.

© 2001 directed electronics, inc.

note: If programmed for the optional Vehicle Recovery System (VRS) feature, arming with the transmitter will arm the VRS feature. (See VRS section of this guide.)

➜ disarming

To disarm the system, press . You will hear two chirps, and the parking lights will flash twice. If the power locks are connected to the system, the doors will unlock. If the siren chirps either four or five times when disarming, refer to the Diagnostics section of this guide. This is called Tamper Alert.

➜ siren silencing

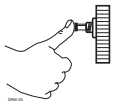
This security system proudly offers Siren Silencing. Siren Silencing is a feature that makes it possible to silence and reset the system while it is triggering, without disarming the system. If the system is triggered, and the siren has been sounding for longer than six seconds, pressing on the remote transmitter will stop the trigger and return the unit to the armed state. The system will not disarm, but rather reset. This prevents you from disabling the system should you wish to disarm it without visually checking the vehicle. Pressing a second time, after resetting the system, will disarm the system. Pressing during the first six seconds of the triggered sequence will disarm the security system immediately. The six second timer is provided for your convenience, in case that the system is accidentally triggered.

© 2001 directed electronics, inc.

➜ disarming without a transmitter

This feature allows you to disarm the security system without the remote transmitter should it be lost, damaged or disabled. In order to disarm the system without a remote transmitter, you must have the vehicle's ignition key and know where the Valet switch is located. Be sure to check with the installer for the location and the number of presses of the Valet switch required to disarm the system.

To disarm the security system, turn the ignition to the "on" position. Press the Valet switch the preset



number of times (1-5 times) within 15 seconds. The system should now disarm. If it does not, you may have waited too long; turn the ignition off and on and try again.

> **important!** The unit can be programmed to respond to 1-5 pulses of the Valet switch for the disarm function. Be sure to check with the installer for the desired programming.

Location of Valet Switch_____

➜ remote controlled chirp muting

To temporarily turn off the arm or disarm siren chirps, use Remote Controlled Chirp Muting. Simply press on the transmitter for less than one second before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only. If you want the arm/disarm chirps turned off permanently, your dealer can do this for you.

© 2001 directed electronics, inc.

note: The Warning Zone response to lighter impacts is bypassed if the system is armed using Remote Controlled Chirp Muting. This ensures that no chirps will be emitted by the siren in an area you want chirp-free. The system is still fully capable of triggering. Only the Warning Zone response is bypassed.

➜ panic mode

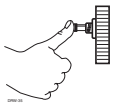
If you are threatened in or near your vehicle, you can attract attention by triggering the system with your remote! Just press for 1.5 seconds, and you will enter Panic Mode. The siren will sound and the parking lights will flash for the programmed siren duration. To stop Panic Mode at any time, press again.

➜ valet mode

You can prevent your security system from automatically arming and triggering by using Valet Mode. This is very useful when washing the vehicle or having it serviced. In Valet Mode, the security system will not arm, even with the remote transmitter, but all convenience functions (door locks, trunk release, etc.) will continue to work normally.

To enter or exit Valet Mode:

1. Turn the ignition on.
2. Turn the ignition off.
3. Press and release the Valet switch within 10 seconds.



© 2001 directed electronics, inc.

The LED status indicator will light steadily if you are entering Valet Mode and will turn off if you are exiting Valet Mode.

➜ remote controlled valet mode

The operations described in this section refer to transmitter buttons. Remember, the buttons used in all the instructions in this guide correspond to a Standard Configuration transmitter. This may not be how your transmitter is set up.

1. Open any vehicle door.
2. Press .
3. Press .
4. Press again.

The LED status indicator will light solid if you are entering Valet Mode, or will go out if you are exiting Valet Mode.

➜ false alarm control technology (FACT)

Your system offers FACT, a feature that prevents annoying repetitive trigger sequences due to faulty door pin switches or environmental conditions such as thunder, jackhammers, airport noise, etc.

Here's how it works: The alarm triggers three times. Each time, the same sensor or switch is triggering the alarm. The three triggers are within 60 minutes of each other. FACT will interpret this pattern of triggers as false alarms. After the third trigger,

© 2001 directed electronics, inc.

FACT ignores, or bypasses, that sensor or switch (along with any other sensors or switches sharing the same zone) for 60 minutes.

If the bypassed sensor tries to trigger the system while it is being bypassed, the 60-minute bypass period will start over. This ensures that a sensor that continually triggers will remain bypassed.

Doors are covered by FACT differently: If the alarm is triggered by an open door for three full cycles, the doors will be bypassed until the trigger ceases.

> **note:** Arming and disarming the system does not reset this function! The only ways to reset a bypassed zone are for it to not trigger for 60 minutes, or to turn on the ignition. If testing your system, it is important to remember that the FACT programming can cause zones to be bypassed and appear to stop working. If five chirps are heard when disarming, FACT has been engaged. If you wish to clear the FACT memory, turn the ignition key on.

FACT is programmable. See the Programming Options section of this guide.

diagnostics

The microprocessor at the heart of your security system is constantly monitoring all of the switches and sensors that are connected to it. It detects any faulty switches and sensors and prevents them from disabling the entire system. The micropro-

© 2001 directed electronics, inc.

cessor will also record and report any triggers that occurred during your absence.

➜ arming diagnostics

If the system is armed while an input is active (door open, sensor triggering, etc.) the unit will chirp once when arming and then one more time a few seconds later. This is called Bypass Notification.

> **note:** Bypass Notification will not occur when using Remote Controlled Chirp Muting or if chirps have been programmed OFF.

The security system will ignore the input that was active when the system was armed, until the input goes away. Three seconds later the system will monitor that input normally. For example, if your vehicle has interior light exit delay, and you arm the system before the interior light goes out, you may hear Bypass Notification chirps. Once the light shuts off, however, the doors are monitored normally.

➜ disarming diagnostics

Extra disarm chirps are the Tamper Alert. If four chirps are heard when disarming, the system was triggered in your absence. If five chirps are heard, a zone was triggered so many times that False Alarm Control Technology (FACT) has bypassed that zone. In either case, the LED status indicator will indicate which zone was involved (see Table of Zones section). The system will retain

© 2001 directed electronics, inc.

this information in its memory, and continue to chirp four or five times each time it is disarmed, until the next time the ignition key is turned on.

➜ table of zones

The zone number is the number of LED flashes used by the system to identify a specific input. The standard input assignments are listed below, along with spaces to write in any optional sensors or switches you have had installed.

Zone - Number of LED Flashes	Description	Dealer-Installed Options
1	Instant trigger - often used for hood/trunk pinswitches	
2	Instant trigger - a heavier impact detected by the shock sensor	
3	Door switch trigger	
4	Instant trigger - for optional sensors	
5	Ignition trigger	

If the Warning Zone response is triggered, the LED will not report it.

> **note:** Your system stores the last two triggered zones in memory. If your system has been triggered but the LED has been reset by turning on the ignition, your dealer can still recall the last two zones that were triggered. Contact your dealer for details.

© 2001 directed electronics, inc.

anti-code grabbing (ACG)

This unit features Anti-Code Grabbing (ACG) with Random Code Encryption. This means the receiver and transmitters each use a mathematical formula called an algorithm to change their code each time the transmitter is used. This technology has been developed to increase the security of the unit. The control unit knows what the next codes should be. This helps to keep the transmitter "in sync" with the control unit even if you use the remote control out of range of the vehicle. However, if a transmitter button has been pressed many times out of range of the vehicle, or the battery has been removed, it may get out of sync with the control unit and fail to operate the system. To re-sync the remote control simply press of the transmitter several times within range of the vehicle. The alarm will automatically re-sync and respond to the transmitters normally.

high frequency

Your system transmits and receives at 433 MHz. This provides a cleaner spectrum with less interference and a more stable signal. Enjoy a phenomenal increase in range – even in areas with high radio interference.

© 2001 directed electronics, inc.

owner recognition

Owner Recognition is a feature available exclusively from Directed®. Using a Directed® Bitwriter hand-held programming tool, your dealer can program many of the system settings. The programmer makes it possible to program different settings for each transmitter that is used with the system. Then, whenever a specific transmitter is used, the system will recall the settings assigned to that transmitter. Owner Recognition lets up to four users of the system have different settings that meet their specific needs. It is almost like having four separate alarms in your vehicle, one for each user.

> **note:** Owner Recognition cannot be programmed without a Bitwriter and the necessary software. Check with your dealer for more information.

smart power up II

This security system will store its current state to non-volatile memory. If power is lost and then reconnected the system will recall the stored state from memory. This means if the unit is in Valet Mode and the battery is disconnected for any reason, such as servicing the car, when the battery is reconnected the unit will still be in Valet Mode. This applies to all states of the system including arm, disarm, VRS, and Valet Mode.

© 2001 directed electronics, inc.

power saver mode

Your system will automatically enter Power Saver Mode while armed or in Valet Mode after a period of time in which no operation has been performed. This lowers the current draw to prevent the system from draining the vehicle's battery. Power Saver Mode takes over under the following conditions:

- Power Saver when the system is armed: After the system has been armed for 24 hours, the LED will flash at half its normal rate, decreasing the system's current draw.
- Power Saver in Valet Mode: When the system enters Valet Mode the LED illuminates steadily. If the vehicle is not used (ignition is not turned on) for a period of one hour while the system is in Valet Mode, the LED will shut off. If the system remains in Valet Mode, the LED will come back on the next time the ignition is turned on and then back off.

programming options

Programming options control what your system does during normal operation, and require few or no additional parts. However, some may require additional installation labor.

The following is a list of the program settings, with the factory settings in **bold**:

- **Active arming** (only with the transmitter) or passive arming (automatic arming 30-seconds after the last door is closed).

© 2001 directed electronics, inc.

If programmed for passive arming, a feature called Smart Relocking will occur when the system is disarmed without opening a door, so that the doors will automatically lock when the system passively rearms.

- Arming/disarming confirmation siren chirps **on** or off.
- Auto-Lock/Auto-Unlock **on** or off: With this feature on, the doors will lock three seconds after the ignition is turned on, and unlock when the ignition is turned off. The system will prevent the doors from locking when the ignition is turned on with any door open. If your installer is programming the security system with the Directed® Bitwriter or a personal computer and the TechSoft Programmer, ignition lock and unlock are independent features and can be programmed separately.
- Passive door locking (with passive arming) or **active door locking** (only when arming with the transmitter). Passive locking allows the vehicle's doors to lock when the security system passively arms (after the 30 second countdown). This feature only works if passive arming has been programmed.
- Panic mode **enabled**/disabled with the ignition on: Some states have laws against siren capability in a moving vehicle.
- Forced passive arming **on** or off: If your system is programmed for passive arming and the forced passive arming feature has been programmed on, the system will passively arm after one hour, even if a protected entry has been left open. This feature is useful if a door has been left ajar when leaving the vehicle. Forced passive arming ensures that the security system will be armed in every situation.

© 2001 directed electronics, inc.

> **note:** When the system passively arms after one hour, the entry point that has been left open, and anything connected to the same zone, is bypassed and cannot trigger the system. However, the remaining inputs to the system are fully operational.

- Automatic Engine Disable (AED) on or **off**: The purpose of this feature is to protect the vehicle from being stolen at all times, regardless of whether or not the alarm is armed. If AED is programmed on, the starter of the vehicle will be disabled 30 seconds after the ignition is turned off. Once the key is turned off, the LED will flash slowly (one-half its normal armed rate) to indicate the AED arming cycle. Thirty seconds later, the starter of the vehicle will be disabled. To start the car, it will be necessary to arm the car with the remote and then disarm it with the remote. It is also possible to disarm the AED feature by turning the ignition key to the "run" position and pressing the Valet switch the programmed number of times. AED is disabled when the system is in Valet Mode.

> **note:** This feature will only function if the starter interrupt relay has been installed.

- Full trigger response **30** or 60 seconds: This determines how long the full triggered sequence lasts. Some states have laws regulating how long a security system can sound before it is considered a nuisance. If your installer is programming the security system with the Directed® Bitwriter or a personal

© 2001 directed electronics, inc.

computer and the TechSoft Programmer, the full triggered response can be programmed for any duration ranging from 1 to 180 seconds.

- False Alarm Control Technology (FACT) **on** or off: Please refer to the FACT section of this manual for a complete explanation of how FACT operates. If FACT is programmed off, the security system will respond to inputs from any sensor indefinitely.

> **note:** Because many states have laws regulating security systems, programming FACT off may cause your system to violate state laws.

- Progressive door trigger **on** or off: When the system is armed and a door is opened, the system responds with ten chirps prior to beginning the full triggered sequence. If an instant trigger is desired, the progressive door trigger can be programmed off.
- Valet pulse count: The number of presses of the Valet switch required to disarm the security system or the VRS system can be programmed from 1-5 presses. The default setting is **one** press.
- Siren tones and chirp volume: The output of the siren consists of six different tones in sequence. Any of these tones can be eliminated by your dealer, resulting in a unique, easily identifiable siren sound. The siren chirps can be either full volume or **6 decibels quieter** than the full alarm blast.

© 2001 directed electronics, inc.

installation options

The system has many options that may require extra parts and labor. A few of the options are listed below:

- **Progressive Unlocking:** In most cars with electric power door locks, the system can be configured so that when disarmed, only the driver's door unlocks. A second press of the disarm button within 15 seconds of disarming unlocks the other doors.
- **Vehicle Recovery System (VRS):** VRS is an anti-carjacking device designed to help in the safe recovery of your vehicle in case of a carjacking. Please refer to the Vehicle Recovery System section of this manual for a complete explanation of how the Vehicle Recovery System operates.

vehicle recovery system (VRS)

The optional VRS feature is designed to ensure that any unauthorized user of your vehicle (even if using your keys and remote control) will not be able to permanently separate you from your vehicle.

The VRS cannot prevent a carjacking attempt; however, it does ensure that if your vehicle is taken by an unauthorized user, it will be disabled (after several progressive warnings) as safely as possible. Should a carjacking occur, the VRS allows you to concern yourself with your personal safety without worrying about your property.

© 2001 directed electronics, inc.

Directed® has engineered this vehicle security system, the fault-proof starter interrupt, and the VRS feature to provide the best combination of personal safety and property protection available. When properly installed, the system can never inadvertently stop your vehicle in traffic or on railroad tracks while the vehicle is in operation. It is unlike other systems that shut down your engine while it is running. This system is designed to perform starter interrupt. The starter interrupt cannot shut down an already-running engine – it can only prevent an engine from starting in the first place.

Any installation which allows this product to shut down a vehicle's engine when it is running is contrary to the product's design and intended usage, and Directed® hereby expressly disclaims any liability resulting therefrom.

➜ arming the VRS

To arm the VRS, turn the ignition to the ON position and press the arm button on the remote transmitter for one second. The parking lights will flash and the siren will chirp once. This can be done before driving or while driving the vehicle. Once the system is armed, it will initiate its triggered sequence (see the following section) if any door is opened and closed. If you are forced from the vehicle, the system will trigger as the door is opened and closed. This is how the system works to combat intersection carjacking.

© 2001 directed electronics, inc.

To protect against parking lot carjacking, arm the VRS before leaving the vehicle. The system will now trigger automatically the next time you or anyone drives the vehicle. This helps to protect the vehicle if someone takes your keys and remote transmitter by force in a parking lot.

> **note:** If the VRS system is armed while operating the vehicle and not disarmed prior to leaving the vehicle, it is still armed and will trigger the next time the vehicle is driven.

➜ VRS triggered sequence

Fifteen seconds after the last door has closed, the system's LED status indicator will begin flashing. This delay is intended to allow you time to distance yourself from your vehicle in the event of a carjacking.

Forty-five seconds later, the siren begins chirping and the parking lights begin flashing. This time could be used to notify authorities that your vehicle has been hijacked, and tell them what the VRS will do next.

Fifteen seconds after the siren chirps begin, the siren's output will change to a continuous blast.

From this point forward, when the ignition key is turned off, the VRS will immediately turn on the starter interrupt. This will prevent the vehicle from being restarted, thus immobilizing it at that spot.

© 2001 directed electronics, inc.

Three minutes after the constant siren output begins, the flashing parking lights and the siren will stop. The starter interrupt will remain active until the system is disarmed. If the door is opened or the ignition is turned off and on in an attempt to restart the car, the siren and light flashing will begin again.

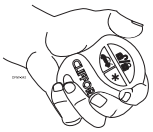
➜ disarming the VRS

Take the time to familiarize yourself with the VRS triggering sequence and the disarm procedure. It is important to recognize and identify the VRS trigger sequence and know how to disarm it in case of accidental activation.

Once the VRS is armed, it does not disarm automatically. You must disarm it the next time you operate the vehicle. You must disarm it with one of the following procedures:

If the system has not entered the triggered sequence (siren has not started chirping):

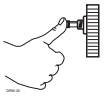
1. Turn the ignition on.
2. Press the disarm button for one second. The lights will flash and the siren will chirp twice.



If the system has entered the triggered sequence (the siren has begun chirping), pressing the disarm button of the transmitter will not disarm the VRS. To disarm the VRS during a VRS trigger sequence:

© 2001 directed electronics, inc.

1. Turn the ignition on.
2. Press the Valet switch the pre-programmed number of times to disarm the VRS system.



glossary of terms

Control Unit: The "brain" of your system. Usually hidden underneath the dash of the vehicle. It houses the microprocessor which monitors your vehicle and controls all of the system's functions.

Fault-Proof Starter Interrupt: An automatic switch controlled by the security system which prevents the vehicle's starter from cranking whenever the system is armed. The vehicle is never prevented from cranking when the system is disarmed, in Valet mode, or should the starter interrupt switch itself fail. Your system is ready for this feature, however installation may require additional labor.

Input: A physical connection to the system. An input can be provided by a sensor, pinswitch or through an existing system in the vehicle, such as ignition or courtesy lights.

LED: Red light mounted somewhere in the vehicle. It is used to indicate the status of your system. It is also used to report triggers and faults in the system or sensors.

© 2001 directed electronics, inc.

Shock Sensor: This is a sensor mounted in the vehicle that is designed to pick up impacts to the vehicle or glass.

Siren: Noise generating device usually installed in the engine compartment of the vehicle. It is responsible for generating the "chirps" you hear, as well as the six tones you hear while the alarm is triggered.

Transmitter: Hand-held, remote control which operates the various functions of your system.

Trigger or Triggered Sequence: This is what happens when the alarm "goes off" or "trips". The triggered response of your system consists of 30 seconds of siren sounding and parking light flashing.

Valet Switch: A small push-button switch mounted somewhere inside the vehicle. It is used to override the alarm when a transmitter is lost or damaged, or to enter or exit Valet mode.

Warning Zone Response: Lighter impacts to the vehicle will generate the secondary Warning Zone response. It consists of several seconds of siren chirps and parking light flashes.

Zone: A zone is a separate input that the alarm can recognize as unique. Each input to the system is connected to a particular zone. Two or more inputs often share the same zone.

© 2001 directed electronics, inc.

security & convenience expansions

Here we have listed only some of the many expansion options available. Please contact your dealer for a complete list of all the options available to you.

Audio Sensor: Metal on glass, glass cracking, and breaking glass each produce distinctive acoustic signatures. The 506T audio sensor uses a microphone to detect sounds, and then analyzes them with proprietary acoustic software to determine if glass has been struck.

Backup Battery: The 520T keeps the system armed, triggers the alarm and keeps the starter interrupt active if main battery power is disconnected.

Car*Com/Automated Vehicle Locator (AVL): Your system is compatible with Directed's Valet Car*Com and AVL systems. Car*Com offers a one-way pager system that allows many of the security and convenience features of your Directed security system to be operated from any touch tone telephone. Directed's AVL system shares the same basic Car*Com features, but takes remote vehicle paging one step further by providing web-enabled two-way GPS vehicle location services, including "bread crumb" tracking and geo-fencing capabilities.

Field Disturbance Sensor: An invisible dome of coverage is established by the installing the 508D "radar" sensor. Your security system can then react to any intrusions into this field with the triggered sequence.

© 2001 directed electronics, inc.

Headlight and Parking Light Automation: The NiteVision system will automatically turn on your parking and headlights when it gets dark. In addition, NiteVision will turn your headlights on whenever the windshield wipers are used. A transmitter function can also be used to turn on your parking and headlights for a programmed time.

Power Trunk Release: The channel two output of the system can operate a factory power release for the vehicle's trunk or hatch. (An optional relay may be required.) If the factory release is not power activated, the Directed®'s 522T trunk release solenoid can often be added.

Power Window Control: Automatic power window control is provided with the 529T and 530T systems.

Radar Master Remote: The 4-button, 16-channel Radar Master remote allows the security system's Multi-Level Security Arming feature to be accessed when the transmitter buttons are configured with separate transmitter buttons for arming and disarming.

Valet Start System: For the ultimate in convenience, the Valet start system can start your vehicle, monitor engine functions, and power your climate control system with a push of a button! Over-rev protection, open-hood lockout, brake pedal shutoff, and automatic timer shutoff are all included. (This feature is only for automatic transmission, fuel-injected gasoline vehicles.)

© 2001 directed electronics, inc.

quick reference guide

To arm using your remote

➤ You can activate, or arm, the system by pressing on your transmitter for one second. When the system arms, you will hear a short siren sound, or chirp, and see the parking lights flash once. If the vehicle's power door locks have been connected to the system, the doors will lock.

To disarm using your remote

➤ To disarm the system, press . You will hear two chirps, and the parking lights will flash twice. If power locks are connected to the system, the doors will unlock. If the siren chirps either four or five times when disarming, see Diagnostics section. This is called Tamper Alert.

Arming while driving

➤ Press on your transmitter while the vehicle is running. The system will chirp once and then once more to indicate that the ignition is on.

Disarming without a transmitter

➤ Turn on the ignition. Press the Valet switch the programmed number of times within 15 seconds. The system should now disarm. If it does not, you may have waited too long. Turn the ignition off and on and try again.

To enter or exit Valet Mode

➤ Turn ignition to "run" position, then turn to "off" position. Press and release the Valet switch within 10 seconds. The LED status indicator will light solid if you are entering Valet Mode, and it will go out if you are exiting Valet Mode.

To activate Panic Mode

➤ Press and hold down for 1.5 seconds.

To exit Panic Mode

➤ Press on the transmitter.

To activate Remote Controlled Chirp Muting

➤ Press briefly before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only.

Location of Valet Switch_____

Number of Valet switch pulses for disarming_____

Cut along dotted line and fold for a quick and easy reference to keep in your purse or wallet.

© 2001 directed electronics, inc.

The company behind this system is Directed Electronics, Inc.

Since its inception, Directed® has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology, Directed® is ISO 9001 registered.

Quality Directed Electronics products are sold and serviced throughout North America and around the world.

Call **(800) 274-0200** for more information about our products and services.

QS 9000
REGISTRATION NO.
0 0 8 4 0 1

ISO 9001
DEI is an ISO 9001 registered company.

Directed® is committed to delivering world class quality products and services that excite and delight our customers.

Directed®
ELECTRONICS, INC.

Vista, CA 92083
www.directed.com
© 2001 Directed Electronics, Inc. - All rights reserved
G909449 8/01